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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/993,228	11/14/2001	Raymond J. Mueller	00-106	8478
22927	7590	11/03/2006	EXAMINER	
WALKER DIGITAL 2 HIGH RIDGE PARK STAMFORD, CT 06905			RETTA, YEHDEGA	
			ART UNIT	PAPER NUMBER
			3622	

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/993,228	<b>Applicant(s)</b> MUELLER ET AL.	
	<b>Examiner</b> Yehdega Retta	<b>Art Unit</b> 3622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3, 6, 7 and 9-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6, 7 and 9-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

This office action is responsive to the Request for Continued Examination filed August 23, 2006. New claims 15-26 have been added. Claims 1-3, 6,7, 9-26 are currently pending.

### ***Claim Objections***

Claims 6 and 7 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

The test for a proper dependent claim is whether the dependent claim includes every limitation of the parent claim. The test is not whether the claims differ in scope. A proper dependent claim shall not conceivably be infringed by anything which would not also infringe the basic claim. If independent claim recites a method of making a specified product, a claim to the product set forth in the independent claim would not be a proper dependent claim since it is conceivable that the product claim can be infringed without infringing the base method claim if the product can be made by a method other than that recited in the base method claim. Therefore, claims 6 and 7 are improper dependent claims.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6, 7, 12, 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz et al. (US 6,055,513) in view of Bieganski et al. (US 6,412,012).

Regarding claims 1, 2, 6, 7, 12, 13 and 14, Katz teaches method comprising of receiving an order information; determining an offer based on order information, such as, order price; total price or historical offer criteria and displaying the offer; generating new order information representing at least one additional product etc., (see col. abstract, col. 10 line 56 to col. 11 line 13, col. 16 line to col. 17 line 7, col. 18 line 1 to col. 19 line 58, col. 24 line 4 to col. 25 line 4, col. 26 lines 4-65, col. 27 lines 1-21). Katz teaches the system (upsell) including a decisional bases such as expert system, fuzzy logic, neural networks, adaptive system or other decisional systems known to the art and which effectuate the desired functionalities of the invention (see col. 20 lines 23-62). Katz does not explicitly disclose genetic program or algorithm, however Bieganski teaches recommendation provided using genetic algorithm, collaborative filtering, neural networks or other statistical models (see col. 7 lines 45-64). It would have been obvious to one of ordinary skill in the art at the time of the invention to know that genetic program or algorithm would be used in Katz's upsell system as one of the decisional system, since learning algorithms such as a genetic algorithm or a neural network algorithm are used as an alternative techniques for the same task. One would be motivated to use any of the various algorithms including fuzzy logic, genetic algorithms, neural networks that can be tailored to a specific system's requirements.

Regarding claims 15-26, generating a plurality of genetic programs and each genetic program is given an opportunity to generate at least one outcome; selecting the program at

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random; generating a set of rules based on historical information and creating new rules based on feedback; determining score etc., is inherent feature of Genetic programming. Genetic Programming, which is an extension of Genetic Algorithm (GA), uses analogies from natural selection and evolution. The main difference between them is the solution encoding method. GA encodes potential solutions for a specific problem as a simple population of fixed-length binary strings named chromosomes and then apply reproduction and recombination operators to these chromosomes to create new chromosomes. GP encodes multi potential solutions for specific problems as a population of programs or functions. The programs can be represented as parse trees, of internal nodes and leaf nodes (or primitive functions and terminals). The terminals can be viewed as the inputs to the specific problem. They might include the independent variables and the set of constants. The primitive functions are combined with the terminals or simpler function calls to form more complex function calls. For instance, GP can be used to evolve new rules from general ones. GP randomly generates an initial population of solutions. Then, the initial population is manipulated using various genetic operators to produce new populations. These operators include reproduction, crossover, mutation, dropping condition, etc.

Regarding claims 24 and 26, Bieganski teaches displaying the offer to the customer via a display at a retail store; wherein the offer is for at least one food item (see col. 7 line 65 to col. 8 line 14). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide Katz offer to someone in a retail store for the intended use of recommending an item to the customer at the POS in order to entice the consumer to buy more products, as taught in Bieganski.

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Regarding claim 25, Katz as modified does not teach the store comprising of quick service restaurant. However official notice is taken that is old and well know in the art of fast food (quick service restaurant) to offer an additional item to a customer based on his/her purchased items, therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Katz's offer using genetic programming as in Bieganski in a quick service restaurant in order to optimize the outcome.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 9, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Katz et al. U.S. Patent No. 6,055,513 in view of Bieganski et al. (US 6,412,012) and further in view of official notice.

Regarding claims 3, 9, 10 and 11, Katz does not teach calculating a difference between the transaction total (after sales tax) and next-highest dollar amount and providing an offer (more than the total amount or less). It is old and well known in yard sells and garage sells for someone to offer an item for less price based on the amount of change, when the seller does not have enough change to give back to the customer. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the upsell of Katz based on the amount of change since the customer would be motivated to buy the item for less and would be willing to give up his/her change.

### *Response to Arguments*

Applicant's arguments filed August 23, 2006 have been fully considered but they are not persuasive. The "101" rejection have been withdrawn. Regarding the objection of claims 6 and 7, Applicant asserts that the claims are independent claims. If the claims are independent than they should be written in independent form. Where a claim in dependent form is not considered to be a proper dependent claim under 37 CFR 1.75(c), the examiner should object to such claim under 37 CFR 1.75(c) and require cancellation of such improper dependent claim or rewriting of such improper dependent claim in independent form. See *Ex parte Porter*, 25 USPQ2d 1144, 1147 (Bd. of Pat. App. & Inter. 1992) (A claim determined to be an improper dependent claim should be treated as a formal matter, in that the claim should be objected to and applicant should be required to cancel the claim (or replace the improper dependent claim with an independent claim) rather than treated by a rejection of the claim under 35 U.S.C. 112, fourth paragraph.). The applicant may thereupon amend the claims to place them in proper dependent form, or may redraft them as independent claims, upon payment of any necessary additional fee. The claims are still treated as improper dependent claims.

### *Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

"Evolving Agents For Personalized Information Filtering" Beerud Sheth and Pattie Maes: IEEE 1993.


"Content-Based, Collaborative Recommendation" Marko Balabanovic and Yoav Shoham; ACM; March 1997.

"The E-content company and Net Perceptions Form Strategic Partnership to deliver XML-based Personalized Content to the Web" Business/Technology Editors Electronic Commerce World '99: Business Wire, New York: Oct 6, 1999. pg 1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yehdega Retta whose telephone number is (571) 272-6723. The examiner can normally be reached on 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Stamber can be reached on (571) 272-6724. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
RETTA YEHDEGA  
PRIMARY EXAMINER

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